WHAT IS CLAIMED IS:

1. A piezoelectric actuator, comprising:

a bending transducer, the transducer having a first transducer end situated in a rotatable manner and having a second transducer end situated to be movable in a longitudinal direction of the transducer, the second transducer end being situated opposite the first transducer end.

2. The piezoelectric actuator of claim 1, further comprising:

a first cylindrical retaining element, the first cylindrical retaining element being at least partially surrounded on a first peripheral side by a first receiving groove, the first cylindrical retaining element being provided at the first transducer end.

3. The piezoelectric actuator of claim 1, further comprising:

a cylindrical retaining element, the cylindrical retaining element being received by a receiving groove in a transversely displaceable manner with respect to deflection direction of the transducer, the cylindrical retaining element being provided at the second transducer end.

4. The piezoelectric actuator of claim 2, further comprising:

a second cylindrical retaining element, the second cylindrical retaining element being received by a second receiving groove in a transversely displaceable manner with respect to deflection direction of the transducer, the second cylindrical retaining element being provided at the second transducer end.

5. The piezoelectric actuator of claim 1, wherein the first transducer end is configured as a connection end of the transducer so that the connection end is connectable to an electrical voltage source to activate the bending transducer.

6. The piezoelectric actuator of claim 4, wherein the first

transducer end is configured as a connection end of the transducer so that the connection end is connectable to an electrical voltage source to activate the bending transducer.

7. The piezoelectric actuator of claim 4, wherein the second cylindrical retaining element is float-mounted in the second receiving groove with respect to the longitudinal transducer direction and forms an upper and a lower stop at the second receiving groove.

8. The piezoelectric actuator of claim 7, wherein the first receiving groove is approximately circular and the second receiving groove is approximately U-shaped.

9. The piezoelectrically actuatable valve of claim 8, wherein the transducer is rectangular and plate-shaped.

10. The piezoelectric actuator of claim 7, wherein during normal operation and the transducer moves in a deflection direction, any resulting working force is tapped off in a middle region of the transducer.

11. A piezoelectrically actuatable valve, comprising:

a piezoelectric actuator including:

a bending transducer, the transducer having a first transducer end situated in a rotatable manner and having a second transducer end situated to be movable in a longitudinal direction of the transducer, the second transducer end being situated opposite the first transducer end;

at least one valve channel, the at least one valve channel being configured to be closed with a sealing element and being configured supportable by the transducer;

a valve housing on a housing side;

a first housing groove provided in the valve housing, the first transducer end being rotatably held in the first housing groove;

a second housing groove provided in the valve housing, the second transducer end being guided so that the second transducer end is movable in a longitudinal transducer direction in the second housing groove, the second transducer end being situated opposite the first transducer end.

12. The piezoelectrically actuatable valve of claim 11, wherein the piezoelectric actuator further includes:

a first cylindrical retaining element, the first cylindrical retaining element being at least partially surrounded on a first peripheral side by a first receiving groove, the first cylindrical retaining element being provided at the first transducer end, and

a second cylindrical retaining element, the second cylindrical retaining element being received by a second receiving groove in a transversely displaceable manner with respect to deflection direction of the transducer, the second cylindrical retaining element being provided at the second transducer end,

wherein the first transducer end is configured as a connection end of the transducer so that the connection end is connectable to an electrical voltage source to activate the bending transducer.

13. The piezoelectrically actuatable valve of claim 11, wherein the bending transducer is concavely bent in the direction of a first valve channel in a off-circuit state.

14. The piezoelectrically actuatable valve of claim 13, further comprising a second valve channel, the second valve channel extending within the valve housing into an effective vicinity of the transducer.

15. The piezoelectrically actuatable valve of claim 11, wherein another sealing element is situated in a middle region of the transducer.

16. The piezoelectrically actuatable valve of claim 15, further comprising:

another sealing element, the another sealing element being effective on both sides of the middle region of the transducer.

17. The piezoelectrically actuatable valve of claim 15, wherein the another sealing element includes at least one sealing convexity directed at at least one of the first valve channel and the second valve channel.

18. The piezoelectrically actuatable valve of claim 16, wherein the another sealing element includes at least one sealing convexity directed at at least one of the first valve channel and the second valve channel.

19. The piezoelectrically actuatable valve of claim 12, further comprising:

another sealing element, wherein the another sealing element is situated in a middle region of the transducer and is effective on both sides of the middle region of the transducer, the another sealing element including at least one sealing convexity directed at at least one of the first valve channel and the second valve channel.

20. A method of manufacturing the bending transducer of claim 1, comprising:

providing an electrically conductive carrier layer, the carrier layer being a flat sheet-metal strip;

adhering a piezoceramic layer to the electrically conductive carrier layer; and

prestressing the electrically conductive carrier layer with the piezoceramic layer along a longitudinal transducer direction by heating and subsequent cooling.